

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/045069 A3

(51) International Patent Classification⁷:

C12Q 1/68

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(21) International Application Number:

PCT/EP2004/012853

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:

9 November 2004 (09.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

103 53 419.9 9 November 2003 (09.11.2003) DE

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

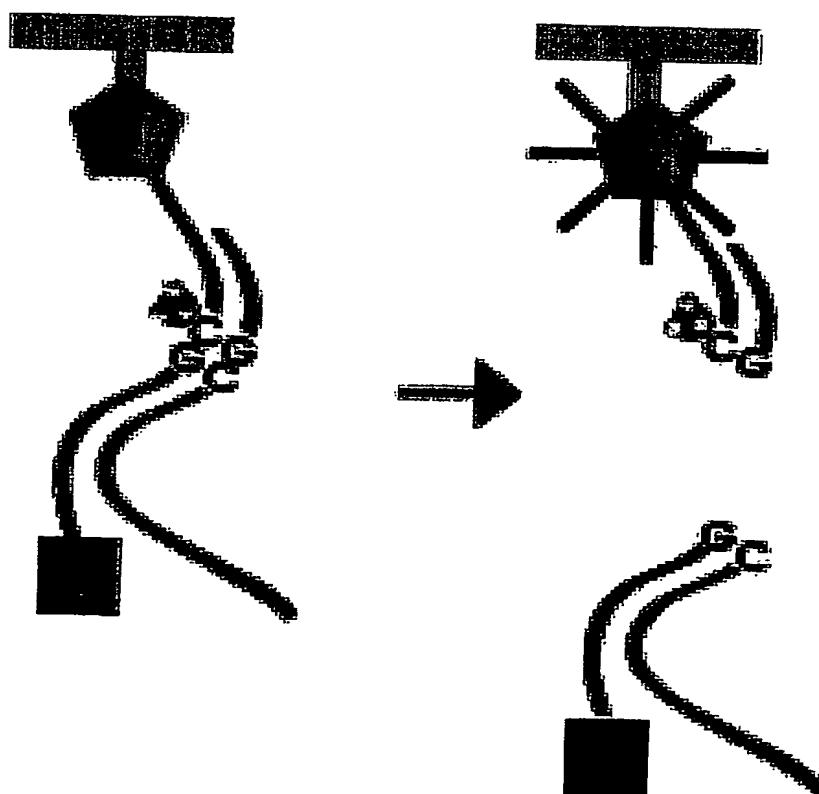
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(54) Title: METHOD FOR INVESTIGATING CYTOSINE METHYLATION IN DNA SEQUENCES BY MEANS OF HEMI-METHYLATION SENSITIVE RESTRICTION ENZYME



(57) Abstract: The following invention concerns an enzymatic method for investigating cytosine methylation in DNA sequences. The DNA to be investigated is hybridized to oligonucleotides. The hybrids are reacted with restriction enzymes, which are able to distinguish hemi-methylated DNA double strands either from unmethylated or from homogenously methylated DNA double strands. The occurrence or non-occurrence of restriction (and thereby methylation status of the cytosine positions to be investigated) can be determined by various techniques. The method is particularly suitable for the diagnosis of cell proliferative disorders (including cancer) and other diseases associated with a change of the methylation status as well as for the prognosis of undesired drug effects.

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SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

21 July 2005